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7.0 REGULATORY IMPACT REVIEW

The Regulatory Impact Review (RIR) is conducted to comply with Executive Order 12866 (E.O. 12866) and provides analyses of the economic benefits and costs of each alternative to the nation and the fishery as a whole. Certain elements required in an RIR are also required as part of an environmental impact statement (EIS). Thus, this section should be considered only part of the RIR, the rest of the RIR can be found throughout this document.

7.1 Description of the Management Objectives

Please see Chapter 1 for a description of the management objectives associated with these management actions.

7.2 Description of the Fishery

Please see Chapter 3 for a description of the fisheries that could be affected by these management actions.

7.3 Statement of the Problem

Please see Chapter 1 for a description of the problem and need for these management actions.

7.4 Description of Each Alternative

Please see Chapter 2 for a summary of each alternative and Chapter 4 for a complete description of each alternative and its expected ecological, social, and economic impacts. Chapters 6 and 8 provide additional information related to the economic impacts of the alternatives.

7.5 Economic Analysis of Expected Effects of Each Alternative Relative to the Baseline

In the preceding chapters, NMFS has analyzed the impacts of the alternatives for nine major issues. Table 7.1 indicates the possible net economic benefits and costs of each alternative for the nine major issues. It is likely that the implementation of the preferred alternatives could incur moderate economic costs. However, the benefits of these actions, in particular preventing closures of the fishery due to exceedance of authorized take of protected species and BiOp requirements, improving data for shark stock assessments, rebuilding HMS, maintaining compliance with ICCAT, increasing the flexibility of BFT management, adding more authorized fishing gears, and addressing a wide variety of regulatory issues, will likely outweigh the costs.

Several alternatives were considered for workshops for protected species handling and release and species identification. The preferred alternatives that would require owners and operators of vessels that use longline and gillnet gear to attend workshops and renew their certifications every three years addresses the BiOp recommendations while avoiding excessive costs associated with certifying crew (A4) or shorter renewal cycles. In addition, the preferred alternative for species identification workshops, alternative A9, would target training to shark

dealers who are likely to face the greatest challenges in proper species identification since they are inspecting landed carcasses, rather than whole specimens. In combination with alternative I2(b), requiring that the second dorsal fin and anal fin remain on all sharks through landking, there could be significant improvements in proper shark species identification and therefore reporting.

The examination of additional time/area closures revealed that is difficult to target closures to prevent impacts on a particular species without impacting other species that are overfished, experiencing overfishing, threatened or endangered. Redistribution of effort, as a result of a closure alternative targeting a particular species interaction, often resulted in the potential for significant impacts on other species that are overfished, experiencing overfishing, threatened or endangered. The potential redistribution of effort with the analyzed time/area closure alternatives often revealed that the economic impact of time/area closures is very dependent on the extent of effort redistribution. Criteria for regulatory framework adjustments for closures, one of the preferred alternatives for this issue, would have minimal economic impacts and would likely lead to enhanced future fishery management planning. In addition, the implementation of complementary HMS management measures in the Madison-Swanson and Steamboats Lumps Marine Reserves (B4), the other preferred alternative for this issue, would result in minimal economic costs on commercial revenues and recreational activities.

The analysis of the northern albacore tuna alternatives reveals that economic costs could occur by unilateral restrictions on effort, however, the ecological and economic benefits from implementing management measures now are likely to be negligible without coordinated international management of this highly migratory species. Pursuing an international rebuilding plan at ICCAT would likely have the best economic return for the potential costs involved in managing northern albacore.

In a similar vein, the management of finetooth sharks within just the HMS fishery would not produce enough ecological benefits to warrant the potential high costs on a small number of HMS permit holders. The preferred alternative would lead to identification of mortality of finetooth sharks in other fisheries that should reveal lower marginal cost opportunities to reduce finetooth shark mortality and thus maximize net benefits.

Incremental management measures, such as those under alternative E3 which limits all HMS permitted vessels participating in Atlantic HMS tournaments to using only non-offset circle hooks when using natural baits or natural bait/artificial lure combinations, would achieve many of their ecological benefits with the minimum amount of economic impacts. Requiring HMS permitted tournament participants to adopt circle hooks would likely encourage other recreational billfish fishery participants to also adopt circle hooks and result in a low regulatory cost and high ecological benefit outcome. Alternative E6 also would utilize an incremental approach to achieve compliance with ICCAT catch/landing limits while having the low impact on billfish tournaments and billfish recreational anglers.

The alternatives considered for bluefin tuna management focus on enhancing regulatory flexibility to address a constantly changing and dynamic resource. NMFS expects that maintaining flexibility and consistency should allow businesses to plan and should maximize the

net benefits for this fishery. The preferred alternatives would allow for future adjustments to take place via regulatory framework actions (F3), formalize a winter fishery for BFT (F3(c)), clarify procedures for calculating school size-class BFT subquota allocations, streamline the annual BFT specification and associated seasonal management measures process (F6), and establish a quota carryover process that would allow for the reallocation of tonnage that exceeds the cap to the Reserve or to another domestic quota category that could result in economic benefits by increasing total allowable catch for those quota categories (F8).

Several regulatory issues have been addressed. The potential shift from a "fishing year" to a calendar year to manage the HMS fishery would impact several of the regulatory alternatives being considered. The largest impact of this potential shift would likely be on billfish fishery participants, however, the benefits of a consistent and easily understood management timeframe would likely have net benefits to the businesses associated with the fishery in the long term. Impacts would only occur if thresholds for implementation of in-season management action are achieved. Otherwise, no impacts would likely occur.

Authorizing recreational Atlantic BAYS spearfishing would also likely enhance the HMS recreational fishery by introducing a new dedicated user group into the Atlantic BAYS recreational fishing community. The benefits of this alternative to the recreational speargun fishing community and CHB sector would likely exceed any associated costs. In general, providing the flexibility to use various technologies allows opportunities to find greater efficiencies. This would likely also be the case with the buoy gear and hand-held cockpit gear alternatives. The buoy gear preferred alternative (H5) and the allowance of hand-held cockpit gears (H7) will continue to afford positive economic benefits to current fishing participants.

Other regulatory issues being considered address a variety of definitional issues and clarifications that are not likely to have much of an overall impact on net benefits and costs. The details of those regulatory adjustments are included in the table below.

7.6 Conclusion

Under E.O. 12866, a regulation is a "significant regulatory action" if it is likely to: (1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; and (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the legal mandates, the President's priorities, or the principles set forth in the Executive Order. The preferred alternatives described in this document do not meet the above criteria. Therefore, under E.O. 12866, the preferred alternatives described in this document have been determined to be not significant for the purposes of E.O. 12866. A summary of the expected net economic benefits and costs of each alternative, which are based on supporting text in Chapters 4 and 6, can be found in Table 7.1.

Table 7.1 Summary of the Net Economic Benefits and Costs of Alternatives.

Alternative	Net Economic Benefits	Net Economic Costs
Workshops		
A1 Voluntary protected species safe handling, release, and identification workshops for HMS longline fishermen (No Action)	Minimal	Short-term cost of traveling for fishermen who attend voluntary workshops. In the long-term, if targets are not met, could result in closures and significant economic impacts to pelagic and bottom longline fisheries. Cost for 12 workshops estimated $42,000 plus materials per year for the Agency.
A2 *Mandatory protected species safe handling, release, and identification workshops and certification for all HMS pelagic or bottom longline vessel owners –* *Preferred Alternative*	Long-term benefit from preventing the fishery from being closed and, if fishery is perceived as being environmentally responsible, from increasing ex-vessel prices.	Travel costs for approximately 549 owners and an estimated $154,269 - $258,048 in annual opportunity costs. Costs associated with recertification (See A6). Cost for 12 workshops estimated $42,000 plus materials per year for the Agency.
A3 *Mandatory protected species safe handling, release, and identification workshops and certification for vessel operators actively participating in HMS pelagic and bottom longline fisheries – Preferred Alternative*	Long-term benefit from preventing the fishery from being closed and, if fishery is perceived as being environmentally responsible, from increasing ex-vessel prices.	Travel costs for approximately 1,098 captains and an estimated $163,602 - $378,810 in annual opportunity costs. Costs associated with recertification (See A6). Cost for 23 workshops estimated $80,500 plus materials per year for the Agency.
A4 Mandatory protected species safe handling, release, and identification workshops and certification for all HMS longline vessel owners, operators, and crew	Long-term benefit from preventing the fishery from being closed and, if fishery is perceived as being environmentally responsible, from increasing ex-vessel prices.	Travel costs for 3,843 participants and an estimated $515,511 - $876,222 in annual opportunity costs. Costs associated with recertification (See A6). Cost for 81 workshops estimated $283,500 plus materials per year for the Agency.
A5 *Mandatory protected species safe handling, release, and identification workshops and certification for shark gillnet vessel owners and operators – Preferred Alternative*	Long-term benefit from preventing the fishery from being closed and, if fishery is perceived as being environmentally responsible, from increasing ex-vessel prices.	Travel and the opportunity cost for approximately 20 participants. Costs associated with recertification (See A6). Cost for 3 workshops estimated $10,500 plus materials per year for the Agency.

Alternative	Net Economic Benefits	Net Economic Costs
A6 *Protected species safe handling, release, and identification certification renewal every 3-years – Preferred Alternative*	Long-term benefit from preventing the fishery from being closed and, if fishery is perceived as being environmentally responsible, from increasing ex-vessel prices.	Costs associated with renewing certification. Minimum cost for workshops estimated $42,000 plus materials per year for the Agency.
A7 No HMS identification workshops (No Action)	No travel costs. If enough fishermen attend, then the LCS fishery could rebuild faster and quotas might be increased.	Inaccuracies in data could result in longer rebuilding timeframes and lower quotas for the fishery.
A8 Voluntary HMS identification workshops for dealers, all commercial vessel owners and operators, and recreational fishermen	Minimal. If enough fishermen attend, then the LCS fishery could rebuild faster and quotas might be increased.	Cost of travel for fishermen who attend voluntary workshops. Cost for workshops estimated $25,200 plus materials per year for the Agency.
A9 *Mandatory shark identification workshops for all shark dealers – Preferred Alternative*	Long-term the LCS fishery could rebuild as a result of improved information. The LCS quota could then be increased and result in higher benefits.	Travel and the opportunity cost for approximately 336 participants. Costs associated with recertification (See A16). Cost for 3 workshops estimated $25,200 per year for the Agency.
A10 Mandatory HMS identification workshops for all swordfish, shark, and/or tuna dealers	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits.	Travel and the opportunity cost for approximately 649 participants. Costs associated with recertification (See A16). Cost for 24 workshops estimated $50,400 per year for the Agency.
A11 Mandatory HMS identification workshops for all commercial longline vessel owners	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits.	Travel costs for approximately 549 owners and an estimated $154,269 - $245,952 in annual opportunity costs. Costs associated with recertification (See A16). Cost for 19 workshops estimated $39,900 per year for the Agency.
A12 Mandatory HMS identification workshops for all commercial longline vessel operators	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits	Travel costs for approximately 1,098 operators and an estimated $163,602 - $378,810 in annual opportunity costs. Cost associated with recertification (See A16). Cost for 37 workshops estimated $77,700 per year for the Agency.
A13 Mandatory HMS identification workshops for all commercial vessel owners (longline, CHB, General category, and handgear/harpoon)	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits	Travel costs for approximately 9,636 vessel owners and an estimated $4,085,664 in annual opportunity costs. Costs associated with recertification (See A16). Cost for 322 workshops estimated $676,200 per year for the Agency.

Alternative	Net Economic Benefits	Net Economic Costs
A14 Mandatory HMS identification workshops for all commercial vessel operators (longline, CHB, General category, and handgear/harpoon)	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits	Travel costs for approximately 10,374 vessel operators and an estimated $1,597,596 in annual opportunity costs. Cost associated with recertification (See A16). Costs for 346 workshops estimated $726,600 per year for the Agency.
A15 Mandatory HMS identification workshops for all HMS Angling permit holders	Long-term the HMS fisheries could rebuild as a result of improved information. Those HMS fisheries that are quota limited could then have quotas increased, resulting in higher benefits	Travel and the opportunity costs for approximately 25,238 participants. Costs associated with recertification (See A16). Cost for workshops estimated $1,768,200 per year for the Agency.
A16 *HMS identification certification renewal every 3-years – Preferred Alternative*	Long-term the LCS fishery could rebuild as a result of improved information. The LCS quota could then be increased and result in higher benefits.	Cost associated with renewing certification. Minimum estimated cost for workshops estimated $25,200 per year for the Agency.
Time/Area Closures		
B1 Maintain existing closures; no new closures (No Action)	Current closures have reduced bycatch and should be aiding in rebuilding. In long-term, stock may rebuild leading to greater quotas.	Continued negative impacts on pelagic longline industry from existing closed areas, including loss of participants and supply infrastructure base.
B2(a) Prohibit the use of pelagic longline gear in HMS fisheries in the central portion of the Gulf of Mexico from May through November (7 months)r	There could be benefits to protected species, and thus increase total existence value of these species. Additional reduction in bycatch of HMS and other fisheries should aid in rebuilding of stocks in general. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Estimated decrease in annual revenues potentially range from (-) $5.1 million to (+)$1.2 million.
B2(b) Prohibit the use of pelagic longline gear in HMS fisheries in an area of the Northeast during the month of June (1 month)	There could be benefits to protected species, and thus increase total existence value of these species. Additional reduction in bycatch of HMS and other fisheries should aid in rebuilding. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Estimated decrease in annual revenues potentially range from (-) $307,077 to (-) $74,608.
B2(c) Prohibit the use of pelagic longline gear in HMS fisheries in the Gulf of Mexico from April through June (3 months)	There could be benefits to protected species, and thus increase total existence value of these species. Additional reduction in bycatch of HMS and other fisheries should aid in rebuilding. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Estimated decrease in annual revenues potentially range from (-) $3.2million to (+) $1.6 million.

Alternative	Net Economic Benefits	Net Economic Costs
B2(d) Prohibit the use of pelagic longline gear in HMS fisheries in the Gulf of Mexico west of 86 degrees west longitude year-round	There could be benefits to protected species, and thus increase total existence value of these species. Additional reduction in bycatch of HMS and other fisheries should aid in rebuilding. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Estimated decrease in annual revenues potentially range from (-) $10.9 million to (+) $6.2 million.
B2(e) Prohibit the use of pelagic longline gear in HMS fisheries in an area of the Northeast to reduce sea turtle interactions	There could be benefits to protected species, and thus increase total existence value of these species. Additional reduction in bycatch of HMS and other fisheries should aid in rebuilding. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Estimated decrease in annual revenues potentially range from (-) $3.3 million to (-) $841,948.
B3(a) Modify the existing Northeastern U.S. time/area closure to allow the use of pelagic longline gear in areas west of 72º 47' west longitude during the month of June	Estimated increase in annual revenues of $241,025.	Perceptions of gear conflict may result in loss of recreational fishery income in infrastructure base.
B3(b) Modify the Northeastern U.S. closure	Estimated increase in annual revenues of $565.	Perceptions of gear conflict may result in loss of recreational fishery income in infrastructure base.
B4 *Implement complementary HMS management measures in Madison-Swanson and Steamboat Lumps Marine Reserves year-round – Preferred Alternative*	There could be benefits to protected species, and thus increase total existence value of these species. May result in increased revenue for gag grouper fishery.	Minimal impact on commercial revenues and recreational activity.
B5 *Establish criteria to consider when implementing new time/area closures or making modifications to existing time/area closures – Preferred Alternative*	Variable	Variable
B6 Prohibit the use of bottom longline gear in an area southwest of Key West to protect endangered smalltooth sawfish	Staying below smalltooth sawfish ITS may keep fishery open. If fishery is perceived as being environmentally responsible then additional benefits could be realized.	Minimal impacts on bottom longline fleet.

Alternative	Net Economic Benefits	Net Economic Costs
B7 Prohibit the use of pelagic longline gear in HMS fisheries in all areas	There could be benefits to protected species, and thus increase total existence value of these species.	Minimum loss of revenue of $26.5 million in revenue annually. May shift fishing effort to other countries that are not as environmentally conscious regarding protected species, and thus increase ecological impacts.
Northern Albacore Tuna		
C1 Maintain compliance with the current ICCAT recommendation (No Action)	None	None
C2 Unilateral proportional reduction of United States northern albacore fishing mortality	If the fishery is rebuilt, there could be an increase in ecological benefits and long-term increase in commercial and recreational benefits.	Possible reduction in income from northern albacore tuna depending on restrictions needed per rebuilding plan.
C3 *Establish the foundation with ICCAT for developing an international rebuilding program – Preferred Alternative*	If the fishery is rebuilt, there could be an increase in ecological benefits and long-term increase in commercial and recreational benefits.	None
Finetooth Sharks		
D1 Maintain current regulations for recreational and commercial fisheries (No Action)	In short-term, business arrangements would remain the same. In long-term, none.	In the long-term, there could be a decrease in finetooth shark population and result in a decrease in commercial revenues from finetooth shark harvest.
D2 Implement commercial management measures to reduce fishing mortality of finetooth sharks	None	Negative impacts on limited number of gillnet vessels. Could also increase discards and increase ecological impacts.
D3 Implement recreational management measures to reduce fishing mortality of finetooth sharks	None	Potential negative economic impacts to shark recreational fishery and related industries.
D4 *Identify sources of finetooth shark fishing mortality to target appropriate management actions – Preferred Alternative*	Long-term, the alternative would have positive ecological impacts by addressing finetooth mortality in HMS and other fisheries and positive economic impacts if the fishery is sustained.	If action as result of information collection does not happen in time to prevent the stock from becoming overfished, then the alternative could reduce quotas and cause more restrictive management measures to be implemented.
Atlantic Billfish		

Alternative	Net Economic Benefits	Net Economic Costs
E1 Retain existing regulations regarding recreational billfish fishing, including permit requirements, minimum size limits, prohibited species, landing form, allowable gear, and reporting requirements (No Action)	None	Continued overfishing could potentially lead to ESA listing and the closure of the recreational fishery.
E2 Effective January 1, 2007, limit all participants in Atlantic HMS recreational fisheries to using only non-offset circle hooks when using natural baits or natural bait/artificial lure combinations	Long-term benefits to angler consumer surplus from rebuilding efforts. Circle hooks cost less so there is some minor benefit associated with this alternative.	Temporary decrease in angler consumer surplus from adjustment to using circle hooks.
E3 *Effective January 1, 2007, limit all HMS permitted vessels participating in Atlantic billfish tournaments to deploying only non-offset circle hooks* *when using natural baits or natural bait/artificial lure combinations – Preferred Alternative*	Long-term benefits to angler consumer surplus from rebuilding efforts. Circle hooks cost less so there is some minor benefit associated with this alternative.	Temporary decrease in angler consumer surplus from adjustment to using circle hooks. Unlikely potential decrease in tournament participation.
E4(a) Increase the minimum size limit for Atlantic white marlin to a specific size between 68 and 71'' LJFL	Long-term potential benefits as Atlantic white marlin stocks rebuild and recreational encounters with white marlin increase.	Uncertain impact on angler participation rates.
E4(b) Increase the minimum size limit for Atlantic blue marlin to a specific size between 103 and 106'' LJFL	Long-term potential benefits as Atlantic blue marlin stocks rebuild and recreational encounters with blue marlin increase.	Uncertain impact on angler participation rates.
E5 Implement a recreational bag limit of one Atlantic billfish per vessel per trip	Long-term potential benefits as stocks rebuild and recreational encounters with marlin increase.	Minor reductions in billfish angler consumer surplus.

Alternative	Net Economic Benefits	Net Economic Costs
E6 *Effective January 1, 2007, implement ICCAT Recommendations on Recreational Marlin Landings Limits – Preferred Alternative*	Long-term potential benefits as stocks rebuild and recreational encounters with marlin increase.	None to moderate adverse impacts to anglers depending on whether thresholds for action are met. Potential reduction in CHB trips by 0.4 to 24.2 percent (from the point in the management cycle when catch and release only fishing may have to be implemented). Potential loss of $1.3 to $5.5 million worth of tournament activity annually under a worst case scenario. Potential impacts on shoreside businesses.
E7 Effective January 1, 2007, - December 31, 2011, allow only catch and release fishing for Atlantic white marlin	Long-term potential benefits as stocks rebuild and recreational encounters with marlin increase.	Potential decrease in angler consumer surplus. Potential decrease in CHB revenue of $49,491 to $1.3 million annually. Potential negative economic impact to tournaments from $1.4 to $5.5 million annually.
E8 Effective January 1, 2007, - December 31, 2011, allow only catch and release fishing for Atlantic blue marlin	Long-term potential benefits as stocks rebuild and recreational encounters with marlin increase.	Potential decrease in CHB revenue of $0.5 to $3.0 million annually. Potential negative economic impacts to tournaments from $13.8 to $19.3 million annually. Angler consumer surplus may decrease.
Bluefin Tuna Quota Management		
F1 Maintain the time-periods, subquota allocations, and geographic set asides for the General and Angling categories as established in the 1999 FMP (No Action)	None	Economic impacts to fishermen, dealers, and support industries associated with timeliness of required FMP amendment.
F2 Establish General category time-periods, subquotas, and geographic set asides annually via framework actions	Framework actions would result in overall positive economic impacts to the General category by allow fishing in locations and times when BFT are most available.	Uncertainty regarding General category quota allocation, from one year to the next, could increase difficulty of business planning. Potential short-term decreases in quota available.

Alternative	Net Economic Benefits	Net Economic Costs
F3 *Amend the management procedures regarding General category time-periods, subquota, as well as geographic set-asides to allow for future adjustments to take place via a regulatory framework action – Preferred Alternative*	Framework actions would result in overall positive economic impacts to the General category by allowing fishing in locations and times when BFT are most available. Minor benefits to the South Atlantic region.	Minor impacts to New England General category due to reallocation of time period sub-quotas from the no action alternative.
F3(a) Establish monthly General category time-periods and subquotas (June-Jan, 12.5% each)	By formalizing the winter fishery, there would be positive economic impacts for General category participants in the South Atlantic region.	Minor impacts to New England General category. If catch rates tend to be high, these quotas could be harvested rapidly and could lead to derby style fisheries on the first of each month.
F3(b) Revise General category time-periods and subquotas to allow for a formalized winter fishery (June-Aug, 54%; Sept, 26.5%; Oct-Nov, 9%; Dec, 5.2%; and Jan, 5.3%)	By formalizing the winter fishery, there would be positive economic impacts for General category participants in the South Atlantic region.	Minor impacts to New England General category. Minor impacts to those who would pursue BFT in the summer months as other time-period subquotas would be reduced.
F3(c) *Revise General category time-periods and subquotas to allow for a formalized winter fishery (June-Aug, 50%; Sept, 26.5%; Oct-Nov, 13%; Dec, 5.2% and Jan, 5.3%) – Preferred Alternative*	By formalizing the winter fishery, there would be positive economic impacts for General category participants in the South Atlantic region.	Minor impacts to New England General category. Minor impacts to those who would pursue BFT in the summer months as other time-period subquotas would be reduced.
F3(d) Revise General category time-periods and subquotas to allow for a formalized winter fishery (June-Aug, 38.7%; Sept, 26.6%; Oct - Nov, 13%; Dec, 10.8%; and Jan, 10.9%)	Greater positive economic impacts to General category participants in the South Atlantic region	Would have increased negative economic impacts to those General category participants in northern areas.
F4 *Clarify the procedures for calculating the Angling category school size-class BFT subquota allocation and maintain the Angling category north/south dividing line – Preferred Alternative*	Minimal positive impacts by slightly increasing school size-class quota (2 mt).	Minimal

Alternative	Net Economic Benefits	Net Economic Costs
F5 Maintain the annual BFT specification process and the under/overharvest procedures within individual domestic quota categories and individual vessels in the Purse seine category (No Action)	None	None
F6 *Revise the annual BFT specification process to refer back to the supporting analytical documents of the consolidated HMS FMP and include seasonal management measures in annual framework actions – Preferred Alternative*	Minor positive economic impacts by allowing for better planning.	None
F7 Eliminate unharvested quota carryover provisions and return unharvested quota to the resource, while maintaining status quo overharvest provisions	None	Could result in derby-style fishing where vessels may operate in less than optimal conditions to harvest the quota before the season is closed. Could reduced fishing opportunities, income, and angler consumer surplus for the commercial and/or recreational fleet, as well as the businesses that support those BFT fisheries.
F8 *Establish an individual quota category carry-over limit of 100 percent of the baseline allocation (i.e., no more than the annual baseline allocation may be carried forward), except for the Reserve category, and authorize the transfer of quota exceeding the 100 percent limit to the Reserve or another domestic quota category, while maintaining status quo overharvest provisions – Preferred Alternative*	Reallocation of tonnage that exceeds the cap to the Reserve or to another domestic quota category could result in economic benefits by increasing total allowable catch for those quota categories.	Slight negative impacts as a result of limiting maximum amount of harvest available from carry forward for a category.
F9 Maintain inseason action procedures (No Action)	None	None

Alternative	Net Economic Benefits	Net Economic Costs
F10 *Revise and consolidate criteria considered prior to performing inseason and some annual BFT management actions – Preferred Alternative*	Consistent criteria for inseason actions could lead to positive economic benefits.	None
F11 Eliminate BFT inseason actions	Quota allocations and daily retention limits would remain stable and help facilitate planning.	Prevents maximum utilization of BFT quota over longest time period.
Timeframe for Annual Management of HMS Fisheries		
G1 Maintain the current fishing year for all HMS (No Action)	Minimal	Minimal
G2 *Shift the fishing year to January 1 – December 31 for all HMS – Preferred Alternative*	Would establish consistent timing between U.S. domestic and international management programs. Would improve international reporting and negotiations, and thus potentially improving international management of fisheries.	In conjunction with preferred Alt E6, could result in impacts to billfish tournaments (see E6 above), but this is unlikely.
G3 Shift the fishing year to June 1-May 31 for all HMS	None	Short-term negative economic impacts to shark wholesale and retail markets.
Authorized Gears		
H1 Maintain current authorized gears in Atlantic HMS fisheries (No Action)	Minimal, if any	Minimal, if any
H2 *Authorize speargun fishing gear as a permissible gear type in the recreational Atlantic BAYS tuna fishery - Preferred Alternative*	Positive economic impacts to recreational speargun fishermen and CHB sector.	Competition for fishing grounds may result in negative economic impacts for rod and reel fishermen.
H3 Authorize speargun fishing gear as a permissible gear type in the commercial tuna handgear and recreational tuna fisheries	Positive economic impacts to recreational speargun fishermen and CHB sector. Potential economic benefits for CHB and General category fishermen from the sale of commercially speared tunas.	Competition for fishing grounds and speargun fishing take under the BFT Angling and General categories may result in negative economic impacts for rod and reel fishermen.
H4 Authorize green-stick fishing gear for the commercial harvest of Atlantic BAYS tunas	Potentially higher landing rates and higher quality of meat landed using green-stick gear could provide positive economic impacts to commercial fishermen, as well as benefit fish houses, gear supply houses, and other associated business.	None

Alternative	Net Economic Benefits	Net Economic Costs
H5 *Authorize buoy gear as a permissible gear type in the commercial swordfish handgear fishery; limit vessels employing buoy gear to possessing and deploying no more than 35 floatation devices, with each individual gear having no more than two hooks or gangions attached - Preferred Alternative*	Positive economic benefits continued to be afforded to current fishery participants.	Negative economic impacts to vessels employing more than 35 free-floating buoyed handlines.
H6 Authorize buoy gear as a permissible gear type in the commercial swordfish handgear fishery; limit vessels employing buoy gear to possessing and deploying no more than 50 floatation devices, with each individual gear having no more than 15 hooks or gangions attached	Additional positive economic impacts from the ability to increase the number of hooks attached to each buoy gear.	None
H7 *Clarify the allowance of hand-held cockpit gears used at boat side for subduing HMS captured on authorized gears - Preferred Alternative*	Positive economic impacts by reducing confusion over the allowance of these gears.	None
Regulatory Housekeeping		
I1(a) Retain current definitions for PLL and BLL gear (No Action)	None	Could continue compliance issues and longer periods of interruption during compliance inspections at sea.
I1(b) Establish additional restrictions on longline gear in HMS time/area closures by specifying a maximum and minimum allowable number of commercial fishing floats to qualify as a BLL and PLL vessel, respectively	Could reduce periods of interruption during compliance inspections at sea.	More restrictive gear definitions could potentially impact approximately 5 percent of all PLL and 10 percent of BLL sets.

Alternative	Net Economic Benefits	Net Economic Costs
I1(c) Differentiate between PLL and BLL gear based upon the species composition of the catch onboard or landed – Preferred Alternative	Provides quantifiable method to determine fishing technique without requiring additional gear restrictions.	Could adversely impact longline vessels that regularly target both demersal and pelagic species on the same trip. Potentially longer enforcement inspections.
I1(d) Require time/depth recorders (TDRs) on all HMS longlines	Could minimize disruption of enforcement inspections.	Could costs vessels $1,400 to $6,500 in equipment costs, efficiency losses having the devices on the line, and labor costs associated with recording the information.
I1(e) Base HMS time/area closures on all longlines (PLL & BLL)	None	Primarily would impact BLL vessels by making some PLL time/area closures also apply to all longline vessels resulting in more significant economic impacts than other alternatives considered for this issue.
I2(a) Retain current regulations regarding shark landing requirements (No Action)	None	None
I2(b) Require that the 2nd dorsal fin and the anal fin remain on all sharks through landing – Preferred Alternative	Increased accuracy in identification could improve stock assessments and lead to faster rebuilding of shark stocks and therefore the fishery.	Potential small reduction in income from retaining second dorsal and anal fins on sharks.
I2(c) Require that the 2nd dorsal fin and the anal fin remain on all sharks through landing, except for lemon and nurse sharks	Increased accuracy in identification could improve stock assessments and lead to faster rebuilding.	Potential small reduction in revenues from retaining second dorsal and anal fins on sharks, except lemon and nurse shark fins can be removed.
I2(d) Require all fins remain on all sharks through landing	Increased accuracy in identification could improve stock assessments and lead to faster rebuilding of shark stocks and therefore the shark fishery.	Reduction in revenues from sale of removed shark fins. Value of shark meat could decrease if retaining fins causes packing problems.
I3(a) Retain current regulations regarding retention limits, with no new prohibitions (No Action)	None	Non-complying vessels may be landing and selling HMS in excess of the commercial retention limits, thus circumventing the conservation benefits derived from those limits.

Alternative	Net Economic Benefits	Net Economic Costs
I3(b) Add new prohibition at § 635.71(a)(48) making it illegal for any person to, "Purchase any HMS that was offloaded from an individual vessel in excess of the retention limits specified in §§ 635.23 and 635.24" – Preferred Alternative	Increased compliance could lead to faster rebuilding of HMS stocks.	Increase dealer administrative/information costs with insuring that they are not purchasing more than the commercial daily retention limits from a particular vessel.
I3(c) Add new prohibition at § 635.71(a)(49) making it illegal for any person to, "Sell any HMS that was offloaded from an individual vessel in excess of the retention limits specified in §§ 635.23 and 635.24" – Preferred Alternative	Increased compliance could lead to faster rebuilding of HMS stocks.	None
I4(a) Retain current coordinates for the East Florida Coast closed area (No Action)	None	None
I4(b) Amend the second coordinate of the East Florida Coast closed area to 28° 17' 10" N. lat., 79° 11' 24" W. long., so that it corresponds with the EEZ – Preferred Alternative	None	Minor impact on landings revenue.
I5(a) Retain the current definition of "handline" at § 635.2 (No Action)	None	None
I5(b) Amend the definition of "handline" at § 635.2 by requiring that they be attached to, or in contact with, all vessels – Preferred Alternative	Decreased opportunity to lose gear may lead to ecological benefits.	Could impact large portion of HMS permit holders. Potentially reduce operational efficiency.

Alternative	Net Economic Benefits	Net Economic Costs
I5(c) Require that handlines remain attached to all vessels when fishing recreationally and allow unattached handlines when fishing commercially	None	Could impact recreational anglers by reducing operational efficiency.
I6(a) Retain current regulations regarding the possession of Atlantic billfish (No Action)	None	None
I6(b) *Prohibit vessels issued HMS commercial permits and operating outside of a tournament from possessing, retaining, or taking Atlantic billfish from the management unit – Preferred Alternative*	Minor potential enhancement of billfish recreational fishing.	None
I7(a) Retain the current regulations regarding BFT dealer reporting (No Action)	None	Could continue extra time costs of entering similar data on multiple forms.
I7(b) *Amend the HMS regulations to provide an option for Atlantic tunas dealers to submit required BFT reports using the Internet – Preferred Alternative*	Could increase data entry efficiency.	None
I7(c) Amend the HMS BFT dealer reporting regulations to require that Atlantic tunas dealers submit BFT reports electronically, with specific exceptions	Could increase data entry efficiency.	Could result in additional Internet access costs and training costs for some dealers.
I8(a) Maintain the existing regulations regarding submission of logbooks (No Action)	None	None

Alternative	Net Economic Benefits	Net Economic Costs
I8(b) Require submission of "No Fishing" reporting forms for selected vessels if no fishing trips occurred during the preceding month, postmarked no later than seven days after the end of the month – Preferred Alternative	Potentially decreases permit renewal delays and their associated costs.	None
I8(c) Require submission of the trip "Cost-Earnings" reporting form for selected vessels 30 days after a trip and the annual "Cost-Earning" report form by January 31 of each year – Preferred Alternative	Potentially decreases permit renewal delays and their associated costs.	None
I9(a) Retain existing regulations at § 635.5(c)(2) requiring anglers to report non-tournament recreational landings of North Atlantic swordfish and Atlantic billfish (No Action)	None	Would continue inconsistency with some other HMS recreational reporting requirements. Anglers on CHB vessels may be unaware of reporting requirements.
I9(b) Require vessel owners(or their designees) to report non-tournament recreational landings of North Atlantic swordfish and Atlantic billfish – Preferred Alternative	Minor – could reduce number of overall calls for reporting.	Minor - almost all owners (or designees) currently report.
I10(a) Retain the current regulations specifically referring to 25 mt (ww) (No Action)	Potential increased revenue from unharvested quota from NED set-aside rolling from one year to the next.	May create an incentive for PLL vessel operators to increase effort, or even possibly directing their effort, on BFT in this area. Potential impacts to other fishery sectors if they are closed after reaching their quota and cannot access available quota from the NED set-aside.
I10(b) Modify the HMS regulations to state that "In addition, each year, 25 mt (ww) will be allocated for incidental catch by pelagic longlines" in the NED	Potential increased revenue from unharvested quota from NED set-aside rolling from one year to the next.	May create an incentive for PLL vessel operators to increase effort, or even possibly directing their effort, on BFT in this area. Potential impacts to other fishery sectors if they are closed after reaching their quota and cannot access available quota from the NED set-aside.

Alternative	Net Economic Benefits	Net Economic Costs
I10(c) *Conduct additional discussions at ICCAT regarding quota rollovers and adjust quotas allocated to account for bycatch related to pelagic longline fisheries in the vicinity of the management area boundary accordingly - Preferred Alternative*	Would eliminate additional incentives for PLL vessel operators to increase effort, or even possibly directing their effort, on BFT in this area.	Would not allow revenue from unharvested quota from NED set-aside rolling from one year to the next. Potential impacts to other fishery sectors if they are closed after reaching their quota and cannot access available quota from the NED set-aside.
I11(a) No permit condition for recreational trips (No Action)	None	None
I11(b) *Require recreational vessels with a Federal permit to abide by Federal regulations, regardless of where they are fishing, unless a state has more restrictive regulations - Preferred Alternative*	Reduced confusion may lead to greater fishery participant satisfaction.	Potential minor decrease in recreational fishing satisfaction.